

Shadia Y. M. Baroud

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PERSONAL STATEMENT

A technically proficient Research Fellow and Data Scientist with over 14 years of experience in AI, machine learning, system analysis and software engineering. Extensively published in theoretical and experimental work, with significant expertise in data analysis, project management and academic research. A proven ability to develop and implement advanced algorithms across multiple domains, including Computer Vision, NLP and cybersecurity. Seeking a supervisory or leadership role where I can contribute to cutting-edge research and technological advancements.

Technical Skills

- Programming Languages: Python, C/C#/C++, Java, PL/SQL, ASP.net, JavaScript, HTML/CSS
- AI/ML Tools: TensorFlow, Pandas, YOLO, RapidMiner, GATE
- Software & Platforms: Jupyter Notebook, Studio, Adobe Photoshop, Ulead Video Studio, Power BI
- Operating Systems: Windows, Linux, Ubuntu
- Networking: CCNA, Network Design, Maintenance and Troubleshooting
- Data Management: Database Design, SQL, Data Mining, Web Scraping
- Methodologies: System Analysis and Design, Software Testing, Agile, Waterfall
- Other Tools: Protégé, Web Scraping (Python)

EMPLOYMENT HISTORY

03/2024 – Ongoing

ITU AI for Good Summit (Geneva, 2024) and World Artificial Intelligence Conference (WAIC, Shanghai, 2024)

- Use Case Review: Thoroughly reviewed the assigned use cases in varied domains of healthcare, education, telecommunication, industry and agriculture from many countries such as China, Malaysia and Cambodia. This included reviews with use case authors from institutes such as Universiti Putra Malaysia, Universiti Teknologi Malaysia and Alibaba.
- Meeting Participation: Actively attended discussion meetings to collaborate with team members and stakeholders, contributing valuable insights and feedback. Edited the use case report and provided inputs based on discussion with use case authors.
- Presentation Delivery: Successfully presented a use case online in Geneva, on behalf of the authors, clearly articulating key point and addressing audience questions effectively.
- Conference Speaker: Participating as a speaker at the WAIC conference, presenting insights and findings to an audience of AI professionals and enthusiasts.

06/2023 – 01/2024

Research Assistance | Sunway University, Subang Jaya, Malaysia

- Conducted literature reviews and assisted in research projects within AI.
- Contributed to experimental design, data collection, and analysis using programming languages like Python.
- Collaborated with a research team, aiding methodology development and brainstorming sessions.
- Managed and maintained research databases, ensuring data accuracy and integrity.
- Applied statistical analysis and visualization tools (e.g., TensorFlow, Pandas) to interpret research data.
- Assisted in drafting research papers, presentations, and technical reports.
- Provided technical support, troubleshooting, and optimized workflows for fellow researchers.

- Presented research findings effectively in both written and oral formats.
- Contributed to grant proposal development for securing research funding.

10/2019 – Present

Freelancer | Online

- **Academic Writer and Editor:** Produced high-quality academic content across diverse subjects, ensuring adherence to academic standards and guidelines. Edited and proofread academic papers, essays, and research articles for clarity, coherence, and accuracy.
- **Online Tutor:** Provided comprehensive online tutoring sessions in Computer Science, catering to the learning needs of diverse students. Developed personalized study plans and teaching materials to enhance student understanding and academic performance.
- **Research Consultant:** Offered expert research guidance and consultancy services to individuals or organizations. Assisted in research design, data collection, analysis, and interpretation, contributing insights and recommendations based on expertise.
- **Data Scientist and Machine Learning Developer:** Developed and implemented advanced machine learning/deep learning models and algorithms across domains such as Computer Vision (YOLO), Natural Language Processing (NLP), and Cybersecurity, extracting valuable insights from complex datasets. Utilized robust data science techniques to address real-world challenges, creating predictive models and conducting comprehensive data analysis to facilitate informed decision-making.
- **Academic Review Contributions:** Served as a peer reviewer for many Journals/Conferences, critically evaluating research submissions in Machine Learning, AI, Software engineering, Cybersecurity, and Computer Vision. Enhanced the rigor and credibility of published research by providing detailed feedback on methodology, analysis, and conclusions. Contributed to advancing scientific knowledge by ensuring the integrity and quality of scholarly articles.

04/2021 – 11/2022

PhD graduate Student (GRA) | UNIMY University, Petaling Jaya, Malaysia

- Conducted advanced research in AI for smart maintenance, contributing to ongoing projects under the guidance of faculty advisors.
- Collaborated with the supervisor to assist in teaching responsibilities, including conducting tutorials, grading assignments, and providing academic support to students enrolled in computer science courses.
- Assisted in redesigning and improving existing courses, leveraging expertise in AI to incorporate innovative teaching methods, relevant case studies, or updated technologies.
- Developed supplementary course materials, such as lecture notes, presentations, and laboratory exercises, to enhance the learning experience for students and align with evolving industry trends.
- Engaged in discussions with the supervisor to identify areas for course enhancement, contributing valuable insights and recommendations based on research findings and industry developments.
- Provided mentorship and guidance to students, fostering an environment conducive to academic growth and encouraging innovative thinking in coursework.
- Supported the supervisor in administrative tasks related to course planning, curriculum development, and assessment strategies, ensuring compliance with academic standards and guidelines.

12/2019 – 05/2021

System Analyst | Diwan, Gaza, Palestine

- Keeping up with and redesigning existing frameworks as required.
- Planning new PC frameworks and structures.
- Investigating specialized issues.
- Hazard alleviation arranging.
- Work with business analysts, project leads, and the IT group to determine issues and guarantee that arrangements are practical and reliable.
- Making framework rules and manuals for the association.
- Running instructional courses and studios on framework measures.

- Leading normal surveys of frameworks and producing covers efficiencies and improvement regions.
- Organizing and focusing on business necessities and discussing plans with partners for survey and endorsement.

10/2017 – 6/2019

Technical Instructor | Khan Younis Training College, UN, Khan Younis, Palestine

- A one-year technical instructor position, working within the UNRWA program
- Give tutorials on Principles of Programming (C#), Introduction to Computer Skills (ICDL), System Analysis & Design, Development of Internet Application (Asp.net), Computer Applications 1, Computer Applications 2(MS Project), Human Resources Management (HRM) and Health Management Information Systems (HMIS).
- Supervises students' Graduation Projects for the E-Business and Health Admin Assistant departments.

06/2012 – 6/2017

Network Technician | Ministry of Planning, Gaza, Palestine

- Helps implement network designs for our ministry.
- Building and maintaining the physical and digital connections necessary for the systems.
- Working closely with other IT professionals and equipment users to troubleshoot problems and ensure all networks are functional.

11/2011 – 06/2016

Academic Tutor | Al-Aqsa Community College, Khan Younis, Palestine

- Gave tutorials on Operating Systems, Software Engineering, E-commerce, Computer Skills, Advanced Computer Skills, Computer Applications 1, Computer Applications 2, Multimedia

10/2010 – 11/2011

Academic Lecturer | Al-Aqsa University, Khan Younis - Gaza, Palestine

- Gave tutorials on Web Design, Multimedia Applications, Databases (Office Hours), Graduation Project Supervision, and Computer Applications.

EDUCATION

05/2021 – Ongoing

UNIMY University | Petaling Jaya, Malaysia

Supervisor: **Prof. Dr. Nor Adnan Yahaya**

PhD: Computing (Integration issues related to ML and software)

03/2013 – 05/2018

Islamic University | Gaza, Palestine

MSc: Information Technology

Supervisor: **Professor Alaa Al-Halees**

Thesis Title: Applying Case-Based Reasoning on Breast Cancer Data: Gaza Strip Case Study

11/2011 – 07/2012

Al-Aqsa University | Khan Younis, Palestine

Higher Diploma: Educational Diploma

03/2008 – 08/2010

Al-Aqsa University | Khan Younis, Palestine

BSc: Computer Science

10/2005 – 07/2007

Gaza Training College - UN | Gaza, Palestine

Diploma: Computer IN Technology

PROFESSIONAL DEVELOPMENT

- Journal paper: Cutting-Edge AI Approaches with MAS for PdM in Industry 4.0: Challenges and Future Directions, Journal of Applied Data Sciences, 05/2024, Scopus.
- Book chapter: Fault Diagnosis and Predictive Maintenance Using AI in the Mechatronics Industry (In press).
- Journal paper: Digital Transformation in Manufacturing: A Review of Industry 4.0 Strategies, Integration Challenges, and Future Directions (In press - Wireless Personal Communications).
- Conference paper: Optimizing Smart Manufacturing Through Multi-Agent Integration of Machine Learning Models. (Submitted to APCC 2024)
- Conference paper: RAPID: Integrating AI and Multi-Agent Systems for Enhanced Traffic Management Framework with YOLOv9. (Submitted to 3ICT 2024)
- Conference paper: Spare Parts Management Analytics for Smart Maintenance: A Review on Dealing with Challenges to Warranty Profitability, ICDiTS 2022, AIP Conference Proceedings, 05/2023, Scopus.
- Journal paper: Consumers Attitude and Purchasing Behavior on Mobile Shopping: A Review.
- Journal paper: Comparing Machine Learning Algorithms for Intrusion Detection: An Experimental Study Using the UNSW-NB15 Dataset.
- Journal paper: An Evolutionary Approach to Software Testing Ontology Development.
- Best Presenter at the 1st International Conference on Digital Technology Frontiers Towards Sustainable Society - ICDiTS 2022.
- Engaged as an active IEEE student member, participating in various events and workshops and leveraging IEEE resources to stay abreast of advancements in Engineering and Computer Science.
- Student Volunteer for IEEE International Conference on Image Processing - ICIP 2023.
- Student Volunteer for IEEE Global Communications Conference - Globecom 2023.
- Scholar for AI for Good Summit, Geneva, Switzerland.
- Scholar for WAIC conference, Shanghai, China.
- Reviewed conference submissions within IEEE, providing expert evaluations and feedback on research papers, abstracts, and Engineering and Computer Science proposals.

Courses

- Professional Certificate in Data Science and AI
- Data Science (R & Python)
- Python
- PL/SQL
- ASP.net
- CCNA
- ICDL
- Web Design - Asp.net
- Photoshop
- E-Content Management
- TOEFL
- Other courses

REFERENCES

- **Prof. Dr. Nor Adnan Yahaya**
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